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Sequence Listing was accepted.

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217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=10; day=28; hr=12; min=20; sec=10; ms=858;  
]

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Application No: 09899575 Version No: 4.0

Input Set:

Output Set:

Started: 2008-09-29 12:55:31.138  
Finished: 2008-09-29 12:55:34.828  
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 690 ms  
Total Warnings: 133  
Total Errors: 0  
No. of SeqIDs Defined: 150  
Actual SeqID Count: 150

| Error code | Error Description                                   |
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| W 213      | Artificial or Unknown found in <213> in SEQ ID (3)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (4)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (5)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (6)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (7)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (8)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (9)  |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (10) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (11) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (12) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (13) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (14) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (15) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (16) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (18) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (19) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (20) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (21) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (30) |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (31) |

**Input Set:**

**Output Set:**

**Started:** 2008-09-29 12:55:31.138  
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| Error code | Error Description   |
|------------|---|
|            | This error has occurred more than 20 times, will not be displayed |
| W 402      | Undefined organism found in <213> in SEQ ID (143)                 |
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# SEQUENCE LISTING

<110> Zur Megede, Jan  
Barnett, Susan W.  
Engelbrecht, Susan  
van Rensburg, Estrelita Janse

<120> Polynucleotides Encoding Antigenic HIV Type C Polypeptides,  
Polypeptides and Uses Thereof

<130> PP01631.102

<140> 09899575  
<141> 2001-07-05

<150> 09/610,313  
<151> 2000-07-05

<160> 150

<170> PatentIn version 3.4

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| accgtggcca cctgtactg cgtgcacgag aagatcgagg tccgcgacac caaggaggcc  | 300  |
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| gtgcaccagg ccatcagccc ccgcacctg aacgcctggg tgaagtgat cgaggagaag   | 480  |
| gccttcagcc ccgaggtgat ccccatgttc accgcctga gcgagggcgc cccccccag   | 540  |
| gacctgaaca cgatgttgaa caccgtgggc ggccaccagg ccgccatgca gatgctgaag | 600  |
| gacaccatca acgaggaggc cgccgagtgg gaccgcgtgc accccgtgca cgccggcccc | 660  |
| atgcccccg gccagatgcg cgagccccgc ggcagcgaca tcgccggcac caccagcacc  | 720  |
| ctgcaggagc agatcgctg gatgaccagc accccccca tcccgtggg cgacatctac    | 780  |
| aagcggtgga tcacctggg cctgaacaag atcgtgcgga tgtacagccc cgtgagcatc  | 840  |
| ctggacatca agcagggccc caaggagccc ttccgcgact acgtggaccg cttcttcaag | 900  |
| acctgcgcg ccgagcagag caccagagg gtgaagaact ggatgaccga caccctgctg   | 960  |
| gtgcagaacg ccaaccccga ctgcaagacc atcctgcgcg ctctcgcccc cggcgccagc | 1020 |
| ctggaggaga tgatgaccgc ctgccagggc gtgggcggcc ccagccacaa ggcccgcgtg | 1080 |
| ctggccgagg cgatgagcca ggccaacacc agcgtgatga tgcagaagag caacttcaag | 1140 |
| ggcccccggc gcacgtcaa gtgtttcaac tgcggcaagg agggccacat cgcccgaac   | 1200 |
| tgcgcgccc ccgcgaagaa gggtgctgg aagtgcggca aggagggcca ccagatgaag   | 1260 |
| gactgcaccg agcgccaggc caacttctg ggcaagatct ggcccagcca caagggccgc  | 1320 |
| cccggcaact tcctgcagag ccgccccgag ccaccgccc ccccgcgga gagcttccgc   | 1380 |
| ttcgaggaga ccacccccg ccagaagcag gagagcaagg accgcgagac cctgaccagc  | 1440 |
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<213> Artificial

<220>

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<400> 4

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|---|----|

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|---|-----|
| ctgcgccccg ggggcaagaa gcactacatg ctgaagcacc tgggtgtggg cagccgcgag | 120 |
|---|-----|

|   |      |
|---|------|
| ctggagggct tgcacctgaa ccccgccctg ctggagaccg ccgagggctg caagcagatc | 180  |
| atgaagcagc tgcagcccg cctgcagacc ggcaccgagg agctgcgcag cctgtacaac  | 240  |
| accgtggcca cctgtactg cgtgcacgcc ggcacgcagg tccgcgacac caaggaggcc  | 300  |
| ctggacaaga tcgaggagga gcagaacaag tcccagcaga agaccagca ggccaaggag  | 360  |
| gccgacggca aggtgagcca gaactacccc atcgtgcaga acctgcaggg ccagatggtg | 420  |
| caccaggcca tcagcccccg caccctgaac gcctgggtga aggtgatcga ggagaaggcc | 480  |
| ttcagccccg aggtgatccc catgttcacc gccctgagcg agggcgccac ccccaggac  | 540  |
| ctgaacacga tgttgaacac cgtgggcggc caccaggccg ccatgcagat gctgaaggac | 600  |
| accatcaacg aggaggccgc cgagtgggac cgctgcacc ccgtgcaggc cggccccgtg  | 660  |
| gcccccgcc agatgcgcga ccccgccggc agcgacatcg ccggcgccac cagcacctg   | 720  |
| caggagcaga tcgctggat gaccagcaac cccccgtgc ccgtgggcga catctacaag   | 780  |
| cggtggatca tectgggcct gaacaagatc gtgcggatgt acagccccgt gagcatcctg | 840  |
| gacatccgcc agggcccca ggagcccttc cgcgactacg tggaccgctt cttcaagacc  | 900  |
| ctgcgcgccg agcaggccac ccaggacgtg aagaactgga tgaccgagac cctgctggtg | 960  |
| cagaacgcca accccgactg caagaccatc ctgcgcgctc tcggccccgg cgccaccctg | 1020 |
| gaggagatga tgaccgctg ccagggcgtg ggcgccccg gccacaaggc ccgcgtgctg   | 1080 |
| gccgaggcga tgagccaggc caacagcgtg aacatcatga tgcagaagag caacttcaag | 1140 |
| ggccccggc gcaacgtcaa gtgcttcaac tgcggcaagg agggccacat cgccaagaac  | 1200 |
| tgccgcgcc cccgcaagaa gggctgctgg aagtgcggca aggaggcca ccagatgaag   | 1260 |
| gactgcaccg agcgccaggc caacttctg ggcaagatct ggcccagcca caaggccgc   | 1320 |
| cccggaact tctgcagaa ccgcagcgag cccgccgcc ccaccgtgc caccgcccc      | 1380 |
| ccgcgcgaga gttccgctt cgaggagacc accccgcc ccaagcagga gcccaaggac    | 1440 |
| cgcgagccct accgcgagcc cctgaccgcc ctgcgcagcc tggtcggcag cggccccctg | 1500 |
| agccagtaa   | 1509 |

<210> 5

<211> 141

<212> DNA

<213> Artificial

<220>

<223> Env common region of HIV strain AF110968

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 gccatgtacg ccccccccat cgccggcaac ctgacctgcg agagcaacat caccggcctg 120  
 ctgctgaccc gcgacggcgg c 141

<210> 6  
 <211> 1431  
 <212> DNA  
 <213> Artificial

<220>  
 <223> synthetic gp120 coding region of HIV strain AF110968

<400> 6  
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 tggggcaccc acgctgcgt gccaccgac cccaaccccc aggagatcgt gctggagaac 180  
 gtgaccgaga acttcaacat gtggaagaac gacatggtgg accagatgca cgaggacatc 240  
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 ctgaagtgcc gcaacgtgaa cgccaccaac aacatcaaca gcatgatcga caacagcaac 360  
 aagggcgaga tgaagaactg cagcttcaac gtgaccaccg agctgcgcga ccgcaagcag 420  
 gaggtgcacg cctgttcta ccgcctggac gtggtgcccc tgcagggcaa caacagcaac 480  
 gagtaccgcc tgatcaactg caacaccagc gccatcacc ccgctgccc caaggtgagc 540  
 ttcgacccca tccccatcca ctactgcacc cccgccggct acgccatcct gaagtgcaac 600  
 aaccagacct tcaacggcac cgccccctgc aacaacgtga gcagcgtgca gtgcgcccac 660  
 ggcacatcaagc ccgtggtgag caccagctg ctgctgaacg gcagcctggc caagggcgag 720  
 atcatcatcc gcagcgagaa cctggccaac aacgccaaga tcatcatcgt gcagctgaac 780  
 aagcccgtga agatcgtgtg cgtgcgcccc aacaacaaca cccgcaagag cgtgcgcac 840  
 ggccccggcc agaccttcta cgccaccggc gagatcatcg gcgacatccg ccaggcctac 900  
 tgcacatca acaagaccga gtggaacagc accctgcagg gcgtgagcaa gaagctggag 960  
 gagcacttca gcaagaaggc catcaagttc gagcccagca gcggcggcga cctggagatc 1020  
 accaccaca gcttcaactg ccgcgggcag ttcttctact gcgacaccag ccagctgttc 1080  
 aacagcacct acagccccag cttcaacggc accgagaaca agctgaacgg caccatcacc 1140  
 atcacctgcc gcatcaagca gatcatcaac atgtggcaga aggtgggccg cgccatgtac 1200

|            |            |            |            |            |            |      |
|------------|------------|------------|------------|------------|------------|------|
| gcccccccca | tgcgcggcaa | cctgacctgc | gagagcaaca | tcaccggcct | gctgctgacc | 1260 |
| cgcgacggcg | gcaagaccgg | ccccaacgac | accgagatct | tccgccccgg | cggcggcgac | 1320 |
| atgcgcgaca | actggcgcaa | cgagctgtac | aagtacaagg | tggtggagat | caagcccctg | 1380 |
| ggcgtggccc | ccaccgaggc | caagcgccgc | gtggtggagc | gcgagaagcg | c          | 1431 |

<210> 7

<211> 1944

<212> DNA

<213> Artificial

<220>

<223> synthetic gp140 coding region of HIV strain AF110968

<400> 7

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| aagaccaccc | tgttctgcac | cagcgacgcc  | aaggcctacg  | agaccgaggt | gcacaacgtg | 120  |
| tgggccaccc | acgcctgcgt | gcccaccgac  | cccaaccccc  | aggagatcgt | gctggagaac | 180  |
| gtgaccgaga | acttcaacat | gtggaagaac  | gacatggtgg  | accagatgca | cgaggacatc | 240  |
| atcagcctgt | gggaccagag | cctgaagccc  | tgcgtgaagc  | tgacccccct | gtgcgtgacc | 300  |
| ctgaagtgcc | gcaacgtgaa | cgccaccaac  | aacatcaaca  | gcatgatcga | caacagcaac | 360  |
| aagggcgaga | tgaagaactg | cagcttcaac  | gtgaccaccg  | agctgcgcga | ccgcaagcag | 420  |
| gaggtgcacg | cctgtttcta | ccgcctggac  | gtggtgcccc  | tgcagggcaa | caacagcaac | 480  |
| gagtaccgcc | tgatcaactg | caacaccagc  | gccatcacc   | aggcctgccc | caaggtgagc | 540  |
| ttcgacccca | tccccatcca | ctactgcacc  | cccgccggct  | acgccatcct | gaagtgcac  | 600  |
| aaccagacct | tcaacggcac | cggccccctgc | aacaacgtga  | gcagcgtgca | gtgcgcccac | 660  |
| ggcatcaagc | ccgtggtgag | caccagctg   | ctgctgaacg  | gcagcctggc | caagggcgag | 720  |
| atcatcatcc | gcagcgagaa | cctggccaac  | aacgccaaga  | tcatcatcgt | gcagctgaac | 780  |
| aagcccgtga | agatcgtgtg | cgtgcgcccc  | aacaacaaca  | cccgcaagag | cgtgcgcac  | 840  |
| ggccccggcc | agaccttcta | cgccaccggc  | gagatcatcg  | gcgacatccg | ccaggcctac | 900  |
| tgcacatca  | acaagaccga | gtggaacagc  | accctgcagg  | gcgtgagcaa | gaagctggag | 960  |
| gagcacttca | gcaagaaggc | catcaagttc  | gagcccagca  | gcggcggcga | cctggagatc | 1020 |
| accaccaca  | gcttcaactg | ccgcggcgag  | ttctttctact | gcgacaccag | ccagctgttc | 1080 |
| aacagcacct | acagccccag | cttcaacggc  | accgagaaca  | agctgaacgg | caccatcacc | 1140 |
| atcacctgcc | gcatcaagca | gatcatcaac  | atgtggcaga  | aggtgggccc | cgccatgtac | 1200 |



|            |            |            |            |            |            |      |
|------------|------------|------------|------------|------------|------------|------|
| gcccccccca | tgcgcggcaa | cctgacctgc | gagagcaaca | tcaccggcct | gctgctgacc | 1260 |
| cgcgacggcg | gcaagaccgg | ccccaacgac | accgagatct | tccgccccgg | cggcggcgac | 1320 |
| atgcgcgaca | actggcgcaa | cgagctgtac | aagtacaagg | tggtggagat | caagcccctg | 1380 |
| ggcgtggccc | ccaccgaggc | caagegcgc  | gtggtggagc | gcgagaagcg | cgccgtgggc | 1440 |
| atcggcgccg | tgttcctggg | cttcctgggc | gccgccggca | gcaccatggg | cgccgccagc | 1500 |
| atcacctga  | cgtgcaggc  | ccgcctgctg | ctgagcggca | tcgtgcagca | gcagaacaac | 1560 |
| ctgctgcgcg | ccatcgaggc | ccagcagcac | ctgctgcagc | tgaccgtgtg | gggcatcaag | 1620 |
| cagctgcaga | ccgcctcct  | ggcctggag  | cgctacctga | aggaccagca | gctgctgggc | 1680 |
| atctggggct | gcagcggcaa | gctgatctgc | accaccgccg | tgccctggaa | cagcagctgg | 1740 |
| agcaaccgca | gccacgacga | gatctgggac | aacatgacct | ggatgcagtg | ggaccgcgag | 1800 |
| atcaacaact | acaccgacac | catctaccgc | ctgctggagg | agagccagaa | ccagcaggag | 1860 |
| aagaacgaga | aggacctgct | ggccctggac | agctggcaga | acctgtggaa | ctggttcagc | 1920 |
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<211> 2466

<212> DNA

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<220>

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<400> 8

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| aagaccaccc | tgttctgcac | cagcgacgcc | aaggcctacg | agaccgaggt  | gcacaacgtg | 120 |
| tgggccaccc | acgcctgcgt | gcccaccgac | ccccaccccc | aggagatcgt  | gctggagaac | 180 |
| gtgaccgaga | acttcaacat | gtggaagaac | gacatggtgg | accagatgca  | cgaggacatc | 240 |
| atcagcctgt | gggaccagag | cctgaagccc | tgctgaagc  | tgacccccct  | gtgcgtgacc | 300 |
| ctgaagtgcc | gcaacgtgaa | cgccaccaac | aacatcaaca | gcatgatcga  | caacagcaac | 360 |
| aagggcgaga | tgaagaactg | cagcttcaac | gtgaccaccg | agctgcgcga  | ccgcaagcag | 420 |
| gaggtgcacg | ccctgttcta | ccgcctggac | gtggtgcccc | tgaggggcaa  | caacagcaac | 480 |
| gagtaccgcc | tgatcaactg | caacaccagc | gccatcacc  | aggcctgccc  | caaggtgagc | 540 |
| ttcgaccca  | tcccatcca  | ctactgcacc | ccgcggcgt  | acgccatcct  | gaagtgcaac | 600 |

|  |      |
|--|------|
| aaccagacct tcaacggcac cgccccctgc aacaacgtga gcagcgtgca gtgcgcccac  | 660  |
| ggcatcaagc ccggtggtgag caccagctg ctgctgaacg gcagcctggc caagggcgag  | 720  |
| atcatcatcc gcagcgagaa cctggccaac aacgccaaga tcatcatcgt gcagctgaac  | 780  |
| aagcccgtga agatcgtgtg cgtgcgcccc aacaacaaca cccgcaagag cgtgcgcatc  | 840  |
| ggccccggcc agaccttcta cgccaccggc gagatcatcg gcgacatccg ccaggcctac  | 900  |
| tgcacatca acaagaccga gtggaacagc accctgcagg gcgtgagcaa gaagctggag   | 960  |
| gagcacttca gcaagaaggc catcaagttc gagcccagca gcggcggcga cctggagatc  | 1020 |
| accaccacac gcttcaactg ccgcggcgag ttcttctact gcgacaccag ccagctgttc  | 1080 |
| aacagcacct acagccccag cttcaacggc accgagaaca agctgaacgg caccatcacc  | 1140 |
| atcacctgcc gcatcaagca gatcatcaac atgtggcaga aggtgggccc cgccatgtac  | 1200 |
| gcccccccca tcgcggcaa cctgacctgc gagagcaaca tcaccggcct gctgctgacc   | 1260 |
| cgcgacggcg gcaagaccgg cccaacgac accgagatct tccgccccgg cggcggcgac   | 1320 |
| atgcgcgaca actggcgcaa cgagctgtac aagtacaagg tggtgagat caagcccctg   | 1380 |
| ggcgtggccc ccaccgaggc caagcgccgc gtggtggagc gcgagaagcg cgccgtgggc  | 1440 |
| atcgggcgccg tgttcctggg ctctcctggc gccgccggca gcaccatggg cgccgccagc | 1500 |
| atcacctga ccgctcaggc ccgcctgctg ctgagcggca tcgtgcagca gcagaacaac   | 1560 |
| ctgctgcgcg ccacgaggc ccagcagcac ctgctgcagc tgaccgtgtg gggcatcaag   | 1620 |
| cagctgcaga ccgcacacct ggccgtggag cgctacctga aggaccagca gctgctgggc  | 1680 |
| atctggggct gcagcggcaa gctgatctgc accaccgccg tgccctggaa cagcagctgg  | 1740 |
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| aagaacgaga aggacctgct ggccctggac agctggcaga acctgtggaa ctggttcagc  | 1920 |
| atcaccaact ggctgtggta catcaagatc ttcatcatga tcgtgggcgg cctgatcggc  | 1980 |
| ctgcgcatca tcttcgccgt gctgagcatc gtgaaccgcg tgcgccaggg ctacagcccc  | 2040 |
| ctgcccttcc agacctgac cccaacccc cgcgagcccg accgcctggg ccgcatcgag    | 2100 |
| gaggagggcg gcgagcagga ccgcggccgc agcatccgcc tggtgagcgg cttcctggcc  | 2160 |
| ctggcctggg acgacctgcg cagcctgtgc ctgttcagct accaccgcct gcgcgacttc  | 2220 |
| atcctgatcg ccgccgcgt gctggagctg ctgggccagc gcggtggga ggccctgaag    | 2280 |
| tacctgggca gcctggtgca gtactggggc ctggagctga agaagagcgc catcagcctg  | 2340 |

|            |            |            |            |            |            |      |
|------------|------------|------------|------------|------------|------------|------|
| ctggacacca | tggccatcgc | cgtggccgag | ggcaccgacc | gcatcatcga | gttcatccag | 2400 |
| cgcacatgcc | gagccatccg | caacatcccc | cggcgatcc  | gccagggtt  | cgaggccgc  | 2460 |
| ctgcag     |            |            |            |            |            | 2466 |

<210> 9

<211> 2547

<212> DNA

<213> Artificial

<220>

<223> synthetic signal sequence and gp160 coding region of HIV strain  
AF110968

<400> 9

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| ttctggatgc | tgatcatcag | cagcgtgggtg | ggcaacctgt  | gggtgaccgt | gtactacggc  | 120  |
| gtgcccgtgt | ggaaggaggc | caagaccacc  | ctgttctgca  | ccagcgacgc | caaggcctac  | 180  |
| gagaccgagg | tgcacaacgt | gtgggccacc  | cacgcctgcg  | tgccaccga  | ccccaacccc  | 240  |
| caggagatcg | tgctggagaa | cgtgaccgag  | aacttcaaca  | tgtggaagaa | cgacatgggtg | 300  |
| gaccagatgc | acgaggacat | catcagcctg  | tgggaccaga  | gcctgaagcc | ctgcgtgaag  | 360  |
| ctgaccccc  | tgtgcgtgac | cctgaagtgc  | cgcaacgtga  | acgccacca  | caacatcaac  | 420  |
| agcatgatcg | acaacagcaa | caagggcgag  | atgaagaact  | gcagcttcaa | cgtgaccacc  | 480  |
| gagctgcgcg | accgcaagca | ggaggtgcac  | gccctgttct  | accgcctgga | cgtggtgccc  | 540  |
| ctgcagggca | acaacagcaa | cgagtaccgc  | ctgatcaact  | gcaacaccag | cgccatcacc  | 600  |
| caggcctgcc | ccaaggtgag | cttcgacccc  | atccccatcc  | actactgcac | ccccgccggc  | 660  |
| tacgccatcc | tgaagtgcaa | caaccagacc  | ttcaacggca  | cggccccctg | caacaacgtg  | 720  |
| agcagcgtgc | agtgcgcca  | cggcatcaag  | cccgtgggtga | gcaccagct  | gctgctgaac  | 780  |
| ggcagcctgg | ccaagggcga | gatcatcatc  | cgcagcgaga  | acctggccaa | caacgccaag  | 840  |
| atcatcatcg | tgcagctgaa | caagcccgtg  | aagatcgtgt  | gcgtgcgccc | caacaacaac  | 900  |
| acccgcaaga | gcgtgcgcat | cggccccggc  | cagaccttct  | acgccaccgg | cgagatcatc  | 960  |
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| ggcgtgagca | agaagctgga | ggagcacttc  | agcaagaagg  | ccatcaagtt | cgagcccagc  | 1080 |
| agcggcgggc | acctggagat | caccaccac   | agettcaact  | gccgcggcga | gttcttctac  | 1140 |
| tgcgacacca | gccagctgtt | caacagcacc  | tacagcccca  | gcttcaacgg | caccgagaac  | 1200 |

|  |      |
|--|------|
| aagctgaacg gcaccatcac catcacctgc cgcataaagc agatcatcaa catgtggcag  | 1260 |
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| atcacccggcc tgcctgtgac ccgcgacggc ggcaagaccg gcccacacga caccgagatc | 1380 |
| ttccgccccg gggcgggcga catgcgcgac aactggcgca acgagctgta caagtacaag  | 1440 |
| gtggtggaga tcaagcccct gggcggtggc cccaccgagg ccaagcgccg cgtggtggag  | 1500 |
| cgcgagaagc gcgcctggg catcgccgcc gtgttcctgg gcttcctggg cgcgcggcgc   | 1560 |
| agcaccatgg gcgcgccag catcaccttg accgtgcagg cccgcctgct gctgagcggc   | 1620 |
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| ctgacctgtg ggggcatcaa gcagctgcag acccgcatcc tggccgtgga gcgctacctg  | 1740 |
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| gtgccttga acagcagctg gagcaaccgc agccacgacg agatctggga caacatgacc   | 1860 |
| tggatgcagt gggaccgcga gatcaacaac tacaccgaca ccatctaccg cctgctggag  | 1920 |
| gagagccaga accagcagga gaagaacgag aaggacctgc tggccctgga cagctggcag  | 1980 |
| aacctgtgga actggttcag catcaccaac tggctgtggt acatcaagat cttcatcatg  | 2040 |
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| gtgcgccagg gctacagccc cctgcccttc cagaccctga ccccaaccc cgcgagccc    | 2160 |
| gaccgcctgg gcgcacga ggaggagggc ggcgagcagg accgcggccg cagcatccgc    | 2220 |
| ctggtgagcg gcttcctggc cctggcctgg gacgacctgc gcagcctgtg cctgttcagc  | 2280 |
| taccaccgcc tgcgcgactt catcctgatc gccgcccgcg tgctggagct gctgggccag  | 2340 |
| cgcggctggg aggcctgaa gtacctgggc agcctggtgc agtactgggg cctggagctg   | 2400 |
| aagaagagcg ccatcagcct gctggacacc atcgccatcg ccgtggccga gggcaccgac  | 2460 |
| cgcacatcg agttcatcca gcgcacatgc cgcgccatcc gcaacatccc ccgcgcac     | 2520 |
| cgcagggct tcgaggccgc cctgcag                                       | 2547 |

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<211> 1035

<212> DNA

<213> Artificial

<220>

<223> synthetic a gp41 coding region of HIV strain AF110968

<400> 10

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| gccgccagca | tcacctgac  | cgtgcaggcc | cgctgctgc  | tgagcgcat  | cgtgcagcag  | 120 |
| cagaacaacc | tgctgcgcgc | catcgaggcc | cagcagcacc | tgctgcagct | gaccgtgtgg  | 180 |
| ggcatcaagc | agctgcagac | ccgcatectg | gccgtggagc | gctacctgaa | ggaccagcag  | 240 |
| ctgctgggca | tctggggctg | cagcggcaag | ctgatctgca | ccaccgccgt | gccttggaac  | 300 |
| agcagctgga | gcaaccgcag | ccacgacgag | atctgggaca | acatgacctg | gatgcagtgg  | 360 |
| gaccgcgaga | tcaacaacta | caccgacacc | atctaccgcc | tgctggagga | gagccagaac  | 420 |
| cagcaggaga | agaacgagaa | ggacctgctg | gccttggaca | gctggcagaa | cctgtggaac  | 480 |
| tggttcagca | tcaccaactg | gctgtggtac | atcaagatct | tcacatgat  | cgtgggcggc  | 540 |
| ctgatcggcc | tgcgcatcat | cttcgccgtg | ctgagcatcg | tgaaccgcgt | gcgccagggc  | 600 |
| tacagcccc  | tgcctttcca | gacctgacc  | cccaaccccc | gcgagcccga | ccgcctgggc  | 660 |
| cgcacgcagg | aggagggcgg | cgagcaggac | cgcgcccgca | gcacccgcct | ggtgagcggc  | 720 |
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| cgcgacttca | tectgatcgc | cgcgcgcgtg | ctggagctgc | tgggccagcg | cggtctgggag | 840 |
| gcctgaagt  | acctgggcag | cctggtgcag | tactgg     |            |             |     |